REMARKS

Claims 1-32 are pending in this application. Claims 15 and 20 to 31 have been withdrawn from consideration.

Claims 1-10, 16-19, and 32 are amended. No new terms have been added to the claims.

Reconsideration and allowance of the remaining claims earnestly are requested.

Miscellaneous objections

3) Applicants thank the Examiner for acknowledging the claims for foreign priority based on the two applications filed in Europe on April 26, 2000 and August 1, 2000. Applicants herewith submit the certified copies of the foreign documents with a request for priority.

4) The Examiner has objected to the drawings containing sequences. In response the applicants amend the "Brief Description of the Drawings" section of the specification and provide sequence identifiers in Figure 1A and Figure 1C.

5) The Examiner also has objected to the formats of the drawings as filed. Applicants herewith provide copies of correctly formatted drawings.

6) The Examiner states that the Information Disclosure Statements submitted on October 26 and December 6, 2001, fail to comply with 37 CFR 1.98(a)(2) and alleges that they have been placed in the file, but the information referred to therein has not been considered. Applicants herewith submit clean copies of the references.

Claim Objection

7) The Examiner has objected to Claim 19 as being in improper dependent form. In response, applicants point out that in view of amended claims 1 and 19, amended claim 19 is now in a proper dependent form. Withdrawal of this objection is respectfully requested.

Non-enablement Rejection

On pages 3-6 of the Office Action, the Examiner has rejected Claims 9, 16, 18, and 32 for non-enablement and lack of written description under 35 U.S.C. 112, first paragraph.

8) The Examiner alleges that the specification does not enable using any "fragment" of SEQ ID NO:1, including a "fragment" of "any two or more contiguous nucleotide bases" in Claim 9. Applicants respectfully disagree with the Examiner's reading of the specification. The specification describes the "fragment" having "at least 10 bases" (see, for example, page 15, lines 25-30; and page 16, lines 16-23), which are longer than "dinucleotides" or trinucleotides," contrary to the Examiner's interpretation. The Examiner also alleges that the specification "is silent on the specific use of [ ] molecules encompassed by claim 9 [ ]." Applicants again disagree with the Examiner and refer to the specification (see, for example, page 15 line 25 through page 16 line 23), wherein examples of use (for example, a diagnostic probe) of polynucleotide fragments are clearly described. Moreover, for further clarity, applicants herewith amend claim 9. Reconsideration of this rejection is therefore solicited.

9) On pages 4-5 of the Office Action, the Examiner has rejected claims 16 and 18 and has alleged that they contain subject matter that is not described in the specification. The Examiner states that the specification "does not provide the guidance needed to produce the polypeptides recited in the claims without employing a polynucleotide encoding them." Applicants disagree with the Examiner and point out that the original specification describes the expression systems (see, for example page 5, lines 4-30) and the processes of producing the polypeptides (see, for example, page 28, line 12 through page 29 line 9). Applicants also indicate that claims 16 and 18 comprise a host cell according to claim 11, which includes a polynucleotide required for the process of producing the claimed polynucleotide. For additional clarity, applicants amend claims 16 and 18. Reconsideration of this rejection is therefore requested.

10) On pages 5-6 of the Office Action, the Examiner has rejected claim 32 and stated that the specification lacks the guidance needed to produce a pharmaceutical

composition comprising a polynucleotide and that the clinical administration of polynucleotides is not an art accepted practice. Applicants respectfully disagree with the Examiner and referred to published articles that are accepted in the art regarding methods of administration of nucleic acids, especially, in gene therapy (see, for example, Fynan *et al. Proc Natl Acad Sci USA* 90:11478-11482 (1993); Molling K., *J Mol Med* 75:242-246 (1997); Tang *et al. Nature* 356:152154 (1992); Molling K., *J Mol Med* 75:242-246 (1997); Nabel, J. G., *et al. Proc. Nat. Acad. Sci. U.S.A.*, 90:11307-11311 (1993)). Withdrawal of this rejection is solicited.

Written Description Rejection (indefiniteness)

11) On pages 6-7 of the Office Action, the Examiner has rejected Claims 17, 18, and 32 for indefiniteness under 35 U.S.C. 112, second paragraph. The Examiner states that the identity of the "polypeptide" is unspecified. Applicants respectfully disagree and point out that the specification describes the "polypeptide", specifically the "EDG8 polypeptide" and the "EDG8 biological activity" (see, for example, page 14, lines 15-23; and page 33, lines 8-24). For further clarity, claims 17, 18 and 32 are amended. Withdrawal and reconsideration is solicited.

Rejection under 101 (non-statutory matter)

12) The Examiner has rejected Claim 19 under 35 U.S.C. 101, and states that the claim encompasses a nucleic acid as it occurs in nature. To obviate the rejection applicants have amended the claim. Withdrawal is requested.

Anticipation Rejection

13) On page 7 of the Office Action, the Examiner has rejected Claims 1 to 14 and 16 to 19 under 35 U.S.C. 102(b) as allegedly anticipated by Glucksmann et al. (WO 00/11166) and Behan et al. (WO 00/22131). Applicants note that:

> In order to reject a claim under 35 USC § 102, the examiner must demonstrate that each and every claim term is contained in a single prior art reference. *See Scripps Clinic & Research Foundation*

v. Genentech, Inc., 18 USPQ2d 1001, 1010 (Fed. Cir. 1991); *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 231 USPQ 81, 90 (Fed. Cir. 1986); *see also* MPEP § 2131. Claim terms are to be given their plain meaning as understood by the person of ordinary skill in the art, particularly given the limitations of the English language. *See* MPEP §§ 707.07(g); 2111.01. Claims are to be given their broadest reasonable interpretation consistent with applicants' specification. *See In re Zletz*, 13 USPQ2d 1320, 1322 (Fed Cir. 1989) (holding that claims must be interpreted as broadly as their terms reasonably allow); MPEP § 2111.

Not only must the claim terms, as reasonably interpreted, be present, an allegedly anticipatory reference must enable the person of ordinary skill to practice the invention as claimed. Otherwise, the invention cannot be said to have been already within the public's possession, which is required for anticipation. *See Akzo, N.V. v. U.S.I.T.C.*, 1 USPQ2d 1241, 1245 (Fed. Cir. 1986); *In re Brown*, 141 USPQ 245, 249 (CCPA 1964).

In response, applicants also note that Glucksmann and Behan describe a sequence "related to" the EDG receptor family; however, they do not teach any specific function or activity of EDG8 or polypeptides derived therefrom. To obviate the rejection and for further clarity, applicants amend claims 1-10 and 16-19 by adding the term "biological activity" for the claimed polypeptides. Withdrawal of the rejections and allowance are solicited.

CONCLUSION

In view of the foregoing, Applicants respectfully requests the Examiner to withdraw the rejections against claims 1-14, 16-19, and 32. The Examiner is invited to contact the undersigned attorney to resolve any issues, in order to expedite the prosecution of the application.

January 22, 2003

Respectfully submitted,

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Copy of Marked-up Claims and Specification

In the Claims:

Amend the claims as follows:

1. An isolated polynucleotide comprising a polynucleotide selected from the group consisting of:

(a) a polynucleotide encoding the polypeptide consisting of the amino acid sequence of SEQ ID NO:2**, wherein the polypeptide has EDG8 biological activity**;

(b) a polynucleotide consisting of SEQ ID NO:1; **and**

(c) a polynucleotide having at least about 90% sequence identity to the polynucleotide of (a) or (b)**, wherein the polynucleotide encodes a polypeptide with EDG8 biological activity**.

2. The isolated polynucleotide of claim 1, which comprises a polynucleotide having at least about 90% sequence identity to SEQ ID NO: 1**, wherein the polynucleotide encodes a polypeptide with EDG8 biological activity**.

3. The isolated polynucleotide of claim 1, which comprises a polynucleotide having at least about 90% sequence identity to a polynucleotide encoding the polypeptide as set forth in SEQ ID NO:2**, wherein the polypeptide has EDG8 biological activity**.

4. The isolated polynucleotide of claim 1, which comprises a polynucleotide having at least about 95% sequence identity to a polynucleotide encoding SEQ ID NO:2**, wherein the polynucleotide encodes a polypeptide with EDG8 biological activity**.

5. The isolated polynucleotide of claim 1, which comprises a polynucleotide encoding SEQ ID NO:2**, wherein the polypeptide has EDG8 biological activity**.

6. The polynucleotide of claim 1, wherein said polynucleotide comprises SEQ ID NO:1, **wherein the polynucleotide encodes a polypeptide with EDG8 biological activity**.

7. The polynucleotide of claim 1, wherein said polynucleotide **[sequence]** encodes the polypeptide of SEQ ID NO:2, **wherein the polypeptide has EDG8 biological activity**.

8. The polynucleotide of claim 1, which is a DNA or RNA, **wherein the polynucleotide encodes a polypeptide with EDG8 biological activity**.

9. A fragment of the polynucleotide of SEQ ID NO:1, **wherein the polynucleotide encodes a polypeptide with EDG8 biological activity**.

10. An expression vector comprising the isolated polynucleotide of claim 1, **wherein the polynucleotide encodes a polypeptide with EDG8 biological activity**.

16. A process for producing the polypeptide comprising SEQ ID NO: 2 comprising: culturing a host cell of claim 11 under conditions sufficient for the production of said polypeptide and recovering the polypeptide from the culture, **wherein the polypeptide has EDG8 biological activity**.

17. A process for producing cells capable of expressing a polypeptide comprising genetically transfecting or transforming cells with the vector of claim 10, **wherein the polypeptide has EDG8 biological activity**.

18. A process for producing a human EDG8 polypeptide or a fragment thereof comprising: culturing a host cell of claim 11 under conditions sufficient for the production of said polypeptide and recovering the polypeptide from the culture, **wherein the polypeptide has EDG8 biological activity**.

19. An isolated polynucleotide which is a complement of a polynucleotide of claim 1, **wherein the polynucleotide encodes a polypeptide with EDG8 biological activity**.

32. A pharmaceutical composition containing a polynucleotide encoding **a [for]** human EDG8 or a fragment thereof encoding for a peptide with **[human]** EDG8 biological activity.

In the Specification:

Amend the specification on page 7, lines 28-30, as follows:

Fig.1A **(SEQ ID NO:1 and 2)**: The nucleotide and deduced amino acid sequence of human EDG8. The deduced amino acid sequence **(SEQ ID NO:2)** is shown below the nucleotide sequence **(SEQ ID NO:1)** with the nucleotide positions indicated on the left.

Amend the specification on page 8, lines 6-13, as follows:

Fig.1C **(SEQ ID NOs. 2-9)**: Alignment of the amino acid sequence of human EDG8 with the other EDG-family members. The amino acid sequence **(amino acids positions 1 through 418)** of human EDG8 (accession number AC011461, **SEQ ID NO:2**) is compared with the EDG1-7 polypeptides (EDG1 **(SEQ ID NO:6)**: accession number M 31210, EDG2 **(SEQ ID NO:3)**: accession number U 80811, EDG3 **(SEQ ID NO:7)**: accession number X 83864, EDG4 **(SEQ ID NO:5)**: accession number AF 011466, EDG5 **(SEQ ID NO:8)**: accession number AF 034780, EDG6 **(SEQ ID NO:9)**: AJ 000479, EDG7 **(SEQ ID NO:4)**: accession number AF 127138). The approximate boundaries of the seven putative transmembrane domains are boxed. Gaps are introduced to optimize the alignment.